ABSTRACT OF THE DISCLOSURE

A dynamic stabilization system includes a stabilization element, such as a spinal rod, a plurality of bone anchors, such as bone bolts, and a like plurality of connectors for connecting the bolts to the spinal rod. At least some of the connectors include a flexible element between the bone anchor and the rod and an adjustment element for adjusting the flexibility of the flexible element, to thereby adjust the dynamic flexibility between the rod and the bone anchor. In one embodiment, the flexible element is a flexible bearing element of a rod end bearing.